## 9 ANALYSIS OF PERSPIRATION/SKIN CELLS GENERAL DOCUMENTATION AND EVIDENCE HANDLING REQUIREMENTS – FORENSIC BIOLOGY SECTION PROCEDURE MANUAL, SECTION I Effective Date: 1-October-2006

9 ANALYSIS OF PERSPIRATION/SKIN CELLS

- 9.1 There are no tests to conclusively identify the presence of perspiration/skin cells. However, the presence of these may be inferred on those items for which a reasonable person could infer that they would be present, e.g., on hat bands, inside gloves, on cuffs and/or collars of shirts and jackets, etc.
- 9.2 Although it is not possible to conclusively identify the presence of perspiration/skin cells, it may be probative to a case to conduct DNA PCR-based typing on items believed to contain one or both of these.
- 9.3 Working with only one item at a time to avoid sample mix-up and/or contamination, examine the item for stains. An alternate light source (ALS) may aid in the location of stains believed to contain perspiration. Describe the item and the appearance, size, and location of the stains. Diagrams and/or photographs may be helpful.
  - EXAMPLE: A baseball cap is found at the scene of a robbery. Identifying the DNA profile of biological material on the inner band of the cap may help identify the perpetrator through a DNA Data Bank search and subsequent "hit".
- 9.4 If appropriate, examine stain(s) for possible mixtures of physiological fluids (blood, urine, semen and/or feces), record and report results.
- 9.5 As appropriate, conduct DNA PCR-based typing.
  - 9.5.1 Conduct DNA PCR-based typing, record results, and report results and conclusions after comparing the profile(s) obtained to the appropriate known sample profiles. If a suspect is eliminated, but a profile believed to be that of the putative perpetrator is identified, conduct a DNA Data Bank search for a "match" to the profile, and report the results of the search.
  - 9.5.2 Conduct DNA PCR-based typing in the absence of a suspect (no suspect case), record results, conduct a DNA Data Bank search for a "match" to a profile believed to be that of the putative perpetrator, and report the results of the search.
  - 9.5.3 In the absence of all appropriate known samples, conduct DNA PCR-based typing, record results, and conduct a DNA Data Bank search for a "match" to a profile believed to be that of the putative perpetrator. Report results and request the submission of appropriate known samples.
- 9.6 If appropriate, forward evidence to another section for analysis.
- 9.7 Return evidence to the primary examiner or to security for final disposition.